

REMARKS

This response is a reply to the Office Action mailed October 28, 2005. A copy of the French priority document is enclosed herewith in order to perfect the claim of foreign priority.

The Examiner rejected claims 1-18 under 35 U.S.C. § 103 over a combination of applicants' admitted prior art in view of Farrington et al., (U.S. Patent No. 6,459,600). The Examiner was of the view that the claimed invention would be obvious in view of modifying the prior art based on the teachings of Farrington et al. Applicant strongly disagrees. Farrington et al. teaches a markedly different circuit and different operation than the present invention.

The Examiner pointed to transistor SQ1 and first and second switches SQ3 and SQ4, respectively in Farrington et al. However, the transistor SQ4 does not connect the terminal of the transistor SQ1 to its control terminal. In particular, SQ4 has its first terminal connected to Vcc, 12 volts. Thus, when transistor SQ4 is enabled, the control terminal of SQ1 is connected to Vcc, namely 12 volts. It is not connected to either its input terminal or its output terminal. Farrington et al., column 6, line 6 specifically states that switch SQ4 is coupled between the primary biasing voltage Vcc and the gate of the first synchronous rectifier SQ1. *See* column 6, lines 65-67.

Claim 1 of the present invention states that the first switch couples the control terminal of the transistor to its own current input and the second switch connects the current output terminal to the control terminal of the transistor. This is directly opposite the teachings of Farrington et al. in which one of the terminals is connected to a high power supply. Accordingly, Farrington et al. teaches away from the present invention. Therefore, even if Farrington et al. were combined with the prior art of applicants' disclosure, it would not render the current invention obvious.

Claim 9 is also patentable in light of the prior art. Claim 9 uses the broader term of "a supply transistor," rather than "a bipolar transistor." Claim 9 also specifies that the first switch element is for selectively coupling the input terminal of the supply transistor to the control terminal of the supply transistor and the second switch element is for selectively coupling the output terminal of the supply transistor to the control terminal of the supply transistor. The

features of claim 9 are not found in the prior art and further, combining applicants' admitted prior art with Farrington et al. teaches away from the present invention since the Farrington et al. circuit is distinctly different and teaches a different structure and different electrical connection. Namely Farrington et al. teaches enabling the transistor SQ1 by connecting its gate to 12 volts. Accordingly, claim 9 is not believed obvious in light of the art and should be allowed.

Submitted herewith is new claim 19 which is drawn along the lines of prior claims 18 combined with 9. New claim 19 specifies that the entire claimed rectifying circuit is in the same semiconductor substrate and thus is contained in the same integrated circuit, including the power supply transistor and the respective switches and control signal line. Claim 20 is even more specific as claiming the relative area that the transistors occupy in the integrated semiconductor substrate.

Other dependent claims are also patentable for reasons beyond the patentability of the respective independent claim. Claim 3 specifies that the switches are P-channel MOS transistors, a feature not found in or obvious from the cited art. Claim 4 further specifies that the P-channel transistors have their respective gates connected to the control terminal of the bipolar transistor via current sources, a feature which is not found in any prior art nor is it obvious in light of the art. Claim 4 is therefore patentable on its own merits beyond the patentability of claim 1. Claim 5 contains the additional feature of the control terminal being two N-channel MOS transistors that are connected to the respective gates of the P-channel transistors, each of the N-channel transistors being controlled by an enable signal and its inverse. The features of claim 5 are therefore patentable in light of the prior art beyond the patentability of claim 1. Additionally, claims 12, 13, 14, 16 and 18 are each patentable individually for reasons beyond the patentability of claim 9. Each of these claims should also be indicated as allowable over the art for reasons beyond the patentability of the independent claim 9.

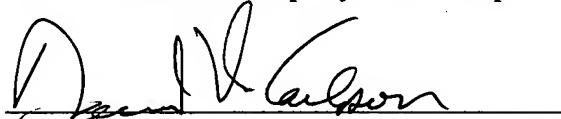
A minor change is made to claim 9 to use the word "switch" throughout the claim instead of the term "switching elements." This is a minor change, not affecting the scope of the claims and is done for the use of uniform language throughout claim 9 and the claimed dependent thereon.

All claims are believed allowable over the art of record. Therefore, allowance is respectfully requested.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read "David V. Carlson", is written over a horizontal line.

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Enclosures:

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